=> logoff

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF
LOGOFF? (Y)/N/HOLD:hold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	66.50	82.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.29	-5.29

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:46:21 ON 04 APR 2001

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L9      110493 BACTEROIDES OR STREPTOCOCCUS

=> d his


     (FILE 'HOME' ENTERED AT 13:33:37 ON 04 APR 2001)

     FILE 'REGISTRY' ENTERED AT 13:33:51 ON 04 APR 2001
               E EQUOL/CN
L1             0 S E3 E9
L2             1 S E3
L3             1 S E9

     FILE 'CAPLUS, BIOSIS, AGRICOLA, USPATFULL, WPIDS' ENTERED AT 13:36:21 ON
     04 APR 2001
L4           463 S 531-95-3 OR EQUOL
L5           316 S DAIDZEIN AND L4
L6       1831970 S MICROORGANISM? OR MICROB? OR BACTERIA
L7            24 S L4 AND L6
L8            18 DUP REM L7 (6 DUPLICATES REMOVED)
L9        110493 S BACTEROIDES OR STREPTOCOCCUS
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=> s l4 and l9

L10            1 L4 AND L9

=> d

L10  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2001 ACS
AN   1999:126822  CAPLUS
DN   130:181817
TI   Isoflavone-containing health food and pharmaceuticals
IN   Uchiyama, Shigeto; Ueno, Tomomi; Imaizumi, Kiyoko; Kumemura, Megumi;
     Masaki, Kyosuke; Shimizu, Seiichi
PA   Otsuka Pharmaceutical Co., Ltd., Japan
SO   PCT Int. Appl., 49 pp.
     CODEN: PIXXD2
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.         KIND  DATE          APPLICATION NO.  DATE
     ---------------    ----  --------      ---------------  --------
PI   WO 9907392          A1   19990218      WO 1998-JP3460   19980804
         W:  AU, CA, CN, JP, KR, US
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
     AU 9884631          A1   19990301      AU 1998-84631    19980804
     EP 1025850          A1   20000809      EP 1998-935344   19980804
         R:  CH, DE, ES, FR, GB, IT, LI, NL
PRAI JP 1997-214604     19970808
     WO 1998-JP3460     19980804
RE.CNT  5
RE
(1) Anon; DE 3415394 A CAPLUS
(2) Kuraray Co, Ltd; JP 04-356479 A 1992 CAPLUS
(3) Kyodo Nyugyo, K; JP 05-176711 A 1993
(4) Nippon Kayaku Co, Ltd; JP 09-157268 A 1997 CAPLUS
(5) Takeda Chemical Industries, Ltd; JP 59-199630 A 1984 CAPLUS
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fiber-rich food like whole-grain products, seeds, (particularly linseed), fruits, berries, and in both soy beans and purified soy protein products. The precursors in food are converted to biol. active compds. by gut ✡bacteria✡. For the isoflavonoids, mainly occurring in soy products and clover, only hydrolysis of the glycosidic bond is necessary to convert them to the active compds. genistein and daidzein, the latter being further metabolized to ✡equol✡. In purified soy products genistein and daidzein are already present as such and no gut bacterial metab. is needed for absorption. The lignan precursors are matairesinol and secoisolariciresinol and from these compds. the intestinal ✡bacteria✡ have to remove the carbohydrate and two Me and two hydroxyl groups before they are converted to the biol. active enterolactone and enterodiol.

AN 1997:237366 CAPLUS
DN 126:276698
TI Lignans and isoflavonoids
AU Adlercreutz, H.
CS Department of Clinical Chemistry, Meilahti Hospital, University of Helsinki, Helsinki, FIN-00290, Finland
SO COST Action 92, Diet. Fibre Ferment. Colon, Proc. COST Action 92 Workshop
(1996), Meeting Date 1995, 324-332. Editor(s): Maelkki, Yrjoe; Cummings, John H. Publisher: Commission of the European Communities, Luxembourg, Luxembourg.
CODEN: 64EVAH
DT Conference; General Review
LA English

L8 ANSWER 12 OF 18 BIOSIS COPYRIGHT 2001 BIOSIS
AB A number of metabolites of daidzein and genestein have been synthesized and their biological activities determined. ✡Equol✡ (3), 5,7,4'-trihydroxyisoflavan (5), 4,7,4'-trihydroxyisoflavan (6), dihydrodaidzein (8), and dihydrogenistein (9) were synthesized either from daidzein (1) orgenistein (2) by hydrogenation. Similarly, the derivatives [illegible] synthesized from 3, 6, and 10, respectively. During acetylation and nmr experiments, 9 was converted to a novel enol intermediate (10). Antifungal, antibacterial, mosquitocidal, nematocidal, and topoisomerase inhibition activities of these compounds were evaluated, with ✡equol✡ (3) being the most active of the compounds tested against topoisomerase I.
AN 1998:160286 BIOSIS
DN PREV199698732421
TI Metabolites of daidzein and genistein and their biological activities.
AU Chang, Yu-Chen; Nair, Muraleedharan G. (1); Nitiss, John L.
CS (1) Bioactive Natural Product Lab., Dep. Horticulture Pesticide Res. Cent., Michigan State University, East Lansing, MI 48824 USA
SO Journal of Natural Products (Lloydia), (1995) Vol. 58, No. 12, pp. 1901-1905.
ISSN: 0163-3864.
DT Article
LA English

L8 ANSWER 13 OF 18 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 5
AB The isoflavones daidzein (I) and genistein (II) were fermented with human fecal ✡bacteria✡ under anaerobic conditions. Dihydrodaidzein (III), benzopyran-4,7-diol,3-(4-hydroxyphenyl) (IV), and ✡equol✡ (V) were isolated from the fermn. broth of I. Only one metabolite, dihydrogenistein (VI), was isolated and characterized from the fermn. broth of II. Metabolites III-VI were identified by spectral methods.
AN 1996:117688 CAPLUS
DN 124:170262
TI Metabolism of daidzein and genistein by intestinal ✡bacteria✡
AU Chang, Yu-Chen; Nair, Muraleedharan G.
CS Bioactive Natural Product Lab., Michigan State Univ., East Lansing, MI, 48824, USA
SO J. Nat. Prod. (1995), 58(12), 1892-6
CODEN: JNPRDF; ISSN: 0163-3864
DT Journal
LA English

L8 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 6
AB Diphenolic compds. belonging to the classes of lignans and isoflavonoids have been identified in urine of man and animals, including the chimpanzee. Some of these compds., formed by intestinal ✡bacteria✡ from plant lignans and phytoestrogens, have been shown in animal studies to exhibit biol. activities that suggest they could function as cancer-protective compds. The effect of diet on urinary excretion of these compds. in the adult male chimpanzee has been studied. It was found that the chimpanzees consuming their regular food excreted large amts. of the isoflavonoid phytoestrogens, ✡equol✡ (mean .+-. SE) (127.5 .+-. 34.0 nmol/mg cr.) and daidzein (20.7 .+-. 9.0 nmol/mg cr.) and lignan, enterolactone (14.1 .+-. 3.5 nmol/mg cr.). Small amts. of the lignan, enterodiol, (0.4 .+-. 0.2 nmol/mg cr.) were also excreted. On all other four test diets (high protein, high carbohydrate, high vegetable, and high fat), the excretion was less, particularly on a high fat diet where the excretion of all diphenolic compds. was reduced by more than 90%
to a level obsd. in omnivorous human subjects or women with breast cancer. These results suggest that diet profoundly influences the excretion of both animal lignans and phytoestrogens urine. Because non-human primates
are particularly resistant to mammary and genital carcinoma on estrogen treatment, the present data suggest that the very high levels of phytoestrogens and lignans was found during exposure to the regular diet may partially account for why these primates are so resistant to hormonal manipulations to induce cancer.
AN 1995:694807 CAPLUS
DN 123:110724
TI Effect of diet on lignans and isoflavonoid phytoestrogens in chimpanzees
AU Musey, Paul I.; Adlercreutz, H.; Gould, K. G.; Collins, D. C.; Fotsis, T.; Bannwart, C.; Maekelae, T.; Waehaelae, K.; Brunow, G.; Hase, H.
CS Dep. Biol. Sci., Clark Atlanta Univ., Atlanta, GA, 30314, USA
SO Life Sci. (1995), 57(7), 655-64
CODEN: LIFSAK; ISSN: 0024-3205
DT Journal
LA English

L8 ANSWER 15 OF 18 BIOSIS COPYRIGHT 2001 BIOSIS
AB The interactions of human Sex steroid binding protein (SBP), and the lignans (Nordihydroguaiaretic acid (NDGA) enterolactone (Ent), enterodiol (End)) and isoflavonoid phytoestrogens (✡Equol✡ (Eq), diazein (Dad), genistein (Gen)) were studied. The phytoestrogens had different dose-dependent inhibitory effects on steroid binding by SBP. Their relative efficiencies were : Ent ltoreq NDGA = Eq gt Gen for displacing E2 and Eq gt Ent gt NDGA gt Gen for displacing T. End and Dad were much less
active. Scatchard analysis suggested that NDGA had similar non-competitive effects on T and E2 binding by reducing the number of binding sites without changing the association constants. But Eq seemed to inhibit E2 binding noncompetitively and T binding competitively. NDGA binding to SBP reduced the immunorecognition of SBP by monospecific antiSBP antibodies, suggesting that NDGA changed SBP immunoreactivity. Unlike NDGA, Eq binding
to SBP caused no immunological changes in SBP, indicating qualitative differences in the effects of the lignan and isoflavonoid. Our results indicate that phytoestrogens may modulate the SBP activity and so influence the role of this protein in the delivery of hormonal information to sex steroid-dependent cells.
AN [illegible] BIOSIS
DN PREV199698639445
TI Interactions between phytoestrogens and human sex steroid binding protein.
AU Martin, Marie Elise; Haourigui, Malika; Pelissero, Catherine; Benassayag, Claudine (1); Nunez, Emmanuel A.
CS (1) U224 INSERM, Fac. Med. Xavier Bichat, 75870 BP 146, Paris France
SO Life Sciences, (1995) Vol. 58, No. 5, pp. 429-436.
ISSN: 0024-3205.
DT Article
LA English

L8 ANSWER 16 OF 18 BIOSIS COPYRIGHT 2001 BIOSIS
AB Lignans and isoflavonoid phytoestrogens, produced from plant precursors by
colonic ✡bacteria✡, may protect against certain cancers. We examined the effects of flaxseed consumption on urinary lignans and isoflavonoids. Eighteen women consumed their usual omnivorous diets for three menstrual cycles and their usual diets supplemented with flaxseed powder (10 g/d) for three cycles in a randomized crossover design. Three-day urine samples from follicular and luteal phases were analyzed for lignans and isoflavonoids by isotope-dilution gas chromatography-mass spectrometry. Excretion of the lignans enterodiol and enterolactone increased with flaxseed from 1.09 +- 1.08 and 3.16 +- 1.47 to 19.48 +- 1.10 and 27.79 +- 1.50 mu-mol/d, respectively (P lt 0.0002). Enterodiol and enterolactone excretion varied among subjects in response to flaxseed (3- to 285-fold increase). There were no differences in excretion of isoflavonoids (daidzein, genistein, ✡equol✡, and O-desmethylangolensin) or the lignan matairesinol with flaxseed. Excretion was not altered by phase of menstrual cycle or duration of flaxseed consumption.
AN 1994:394979 BIOSIS
DN PREV199497407979
TI Urinary lignan and isoflavonoid excretion in premenopausal women consuming
flaxseed powder.
AU Lampe, Johanna W.; Martini, Margaret C.; Kurzer, Mindy S.; Adlercreutz, Herman; Slavin, Joanne L. (1)
CS (1) Dep. Food Sci. Nutr., Univ. Minn., 1334 Eckles Ave., St. Paul, MN 55108 USA
SO American Journal of Clinical Nutrition, (1994) Vol. 60, No. 1, pp. 122-128.
ISSN: 0002-9165.
DT Article
LA English

L8 ANSWER 17 OF 18 USPATFULL
AB Method for inhibiting aldehyde dehydrogenase activity using daidzin as a selective inhibitor of ALDH-I activity. Because daidzin is a potent selective, yet reversible, inhibitor of ALDH-I activity, it is useful as a pharmaceutical composition in methods for the treatment of alcohol dependence (i.e., alcoholism) or alcohol abuse, for alcohol sensitization, for extinguishing an alcohol-drinking response, for suppressing an urge for alcohol, for inducing alcohol intolerance, for preventing alcoholism in an individual with or without a susceptibility or predisposition to alcoholism or alcohol abuse, and for limiting alcohol consumption in an individual whether or not genetically predisposed.
AN 93:31436 USPATFULL

TI Method for the inhibition of ALDH-I useful in the treatment of alcohol dependence or alcohol abuse
IN Vallee, Bert L., Brookline, MA, United States
Keung, Wing M., Wayland, MA, United States
PA The Endowment For Research In Human Biology, Boston, MA, United States
(U.S. corporation)
PI US 5204369 19930420
AI US 1991-723404 19910701 (7)
DT Utility
EXNAM Primary Examiner: Waddell, Frederick E.; Assistant Examiner: Tsung, Frederick F.
LREP Allegretti & Witcoff, Ltd.
CLMN Number of Claims: 2
ECL Exemplary Claim: 1
DRWN 11 Drawing Figure(s); 10 Drawing Page(s)
LN.CNT 1939
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 18 BIOSIS COPYRIGHT 2001 BIOSIS
AB Dietary studies and assays of urinary lignans in postmenopausal women showed that lignan excretion is significantly lower in urine of women with breast cancer than in normal omnivorous and vegetarian women and confirmed
that there is a significant correlation between fiber intake and lignan excretion. The precursors of the human lignans enterolactone and enterodiol formed by the intestinal microflora are to be found in fiber-rich foods such as grains, nuts and legumes. Excretion of ☆equol☆, which has antiestrogenic properties, was similar in all groups studied and did not correlate with fiber intake, but occasional high values were found in some subjects.
AN 1983:308620 BIOSIS
DN BA76:66112
TI EXCRETION OF THE LIGNANS ENTERO LACTONE AND ENTERO DIOL AND OF
☆EQUOL☆ IN OMNIVOROUS AND VEGETARIAN POST MENOPAUSAL WOMEN AND IN
WOMEN WITH BREAST CANCER.
AU ADLERCREUTZ H; FOTSIS T; HEIKKINEN R; DWYER J T; WOODS M; GOLDIN B R;
GORBACH S L
CS DEP. CLIN. CHEM., UNIV. HELSINKI, MEILAHTI HOSP., SF-00290 HELSINKI 29,
FINL.
SO LANCET, (1982) 2 (8311), 1295-1299.
CODEN: LANCAO. ISSN: 0023-7507.
FS BA; OLD
LA English

=> s bacteroides or streptococcus

L9 110493 BACTEROIDES OR STREPTOCOCCUS

=> d his

(FILE 'HOME' ENTERED AT 13:33:37 ON 04 APR 2001)

FILE 'REGISTRY' ENTERED AT 13:33:51 ON 04 APR 2001
E EQUOL/CN
L1 0 S E3 E9
L2 1 S E3
L3 1 S E9

FILE 'CAPLUS, BIOSIS, AGRICOLA, USPATFULL, WPIDS' ENTERED AT 13:36:21 ON
04 APR 2001
L4 463 S 531-95-3 OR EQUOL
L5 316 S DAIDZEIN AND L4
L6 1831970 S MICROORGANISM? OR MICROB? OR BACTERIA
L7 24 S L4 AND L6
L8 18 DUP REM L7 (6 DUPLICATES REMOVED)
L9 110493 S BACTEROIDES OR STREPTOCOCCUS

=> s l4 and l9

L10 1 L4 AND L9

=> d

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2001 ACS
AN 1999:126822 CAPLUS
DN 130:181817
TI Isoflavone-containing health food and pharmaceuticals
IN Uchiyama, Shigeto; Ueno, Tomomi; Imaizumi, Kiyoko; Kumemura, Megumi; Masaki, Kyosuke; Shimizu, Seiichi
PA Otsuka Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA Japanese

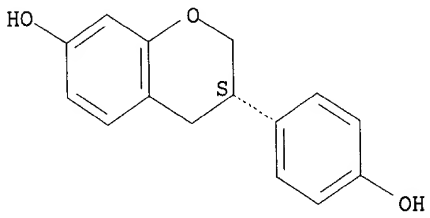
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9907392	A1	19990218	WO 1998-JP3460	19980804
W: AU, CA, CN, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9884631	A1	19990301	AU 1998-84631	19980804
EP 1025850	A1	20000809	EP 1998-935344	19980804
R: CH, DE, ES, FR, GB, IT, LI, NL				

PRAI JP 1997-214604 19970808
WO 1998-JP3460 19980804
RE.CNT 5
RE
(1) Anon; DE 3415394 A CAPLUS
(2) Kuraray Co, Ltd; JP 04-356479 A 1992 CAPLUS
(3) Kyodo Nyugyo, K; JP 05-176711 A 1993
(4) Nippon Kayaku Co, Ltd; JP 09-157268 A 1997 CAPLUS
(5) Takeda Chemical Industries, Ltd; JP 59-199630 A 1984 CAPLUS

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
RN 531-95-3 REGISTRY
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (S)-
CN 4',7-Isoflavandiol (6CI, 7CI, 8CI)
OTHER NAMES:
CN (-)-Equol
CN (S)-(-)-4',7-Isoflavandiol
CN 4',7-Dihydroxyisoflavan
CN **Equol**
CN Equol, (-)-
FS STEREOSEARCH
DR 20879-01-0
MF C15 H14 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK*, NAPRALERT, PROMT, [illegible]
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



203 REFERENCES IN FILE CA (1967 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
204 REFERENCES IN FILE CAPLUS (1967 TO DATE)
11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

09/485320

DN 133:119698
TI Interindividual variation in metabolism of soy isoflavones and lignans: influence of habitual diet on ☆equol☆ production by the gut microflora
AU Rowland, Ian R.; Wiseman, Helen; Sanders, Tom A. B.; Adlercreutz, Herman;
Bowey, Elizabeth A.
CS Northern Ireland Centre for Diet and Health, University of Ulster, Coleraine, BT52 1SA, UK
SO Nutr. Cancer (2000), 36(1), 27-32
CODEN: NUCADQ; ISSN: 0163-5581
PB Lawrence Erlbaum Associates, Inc.
DT Journal
LA English
RE.CNT 35
RE
(1) Adlercreutz, H; Am J Obstet Gynecol 1999, V180, P737 CAPLUS
(2) Adlercreutz, H; Clin Chim Acta 1991, V199, P263 CAPLUS
(4) Adlercreutz, H; Lancet 1982, V2, P1295 CAPLUS
(6) Adlercreutz, H; Reproductive and Developmental Toxicology 1998, P299 CAPLUS
(7) Arora, A; Arch Biochem Biophys 1998, V356, P133 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
AB A compn. consists of a daizein (sic) -contg. material and a ☆microorganism☆ capable of metabolizing daizein to give ☆equol☆. It is effective in preventing unidentified complaints in women of middle and old ages. The ☆microorganism☆ is selected from Bacteroides ovatus, Streptococcus intermedius, and S. constellatus.
AN 1999:126822 CAPLUS
DN 130:181817
TI Isoflavone-containing health food and pharmaceuticals
IN Uchiyama, Shigeto; Ueno, Tomomi; Imaizumi, Kiyoko; Kumemura, Megumi; Masaki, Kyosuke; Shimizu, Seiichi
PA Otsuka Pharmaceutical Co., Ltd., Japan
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9907392	A1	19990218	WO 1998-JP3460	19980804
W: AU, CA, CN, JP, KR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9884631	A1	19990301	AU 1998-84631	19980804
EP 1025850	A1	20000809	EP 1998-935344	19980804
R: CH, DE, ES, FR, GB, IT, LI, NL				

PRAI JP 1997-214604 19970808
WO 1998-JP3460 19980804
RE.CNT 5
RE
(1) Anon; DE 3415394 A CAPLUS
(2) Kuraray Co, Ltd; JP 04-356479 A 1992 CAPLUS
(3) Kyodo Nyugyo, K; JP 05-176711 A 1993
(4) Nippon Kayaku Co, Ltd; JP 09-157268 A 1997 CAPLUS
(5) Takeda Chemical Industries, Ltd; JP 59-199630 A 1984 CAPLUS

L8 ANSWER 3 OF 18 USPATFULL
AB Methods and compounds for inhibiting aldehyde dehydrogenase are disclosed. The compounds are useful as pharmaceutical compositions in methods for therapeutically treating alcohol consumption in a human.
AN 1999:37142 USPATFULL
TI Method for the inhibition of ALDH-I useful in the treatment of alcohol dependence or alcohol abuse
IN Vallee, Bert L., Brookline, MA, United States
Keung, Wing-Ming, Wayland, MA, United States
PA The Endowment for Research in Human Biology, Inc., Boston, MA, United States (U.S. corporation)
PI US 5886028 19990323
AI US 1997-840360 19970429 (8)
RLI Continuation of Ser. No. US 1994-170272, filed on 24 May 1994, now patented, Pat. No. US 5624910 which is a continuation-in-part of Ser. No. US 1991-723404, filed on 1 Jul 1991, now patented, Pat. No. US 5204369
DT Utility
EXNAM Primary Examiner: Richter, Johann; Assistant Examiner: Keating, Dominic
LREP Banner & Witcoff, Ltd.
CLMN Number of Claims: 10
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 2213
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 4 OF 18 USPATFULL
AB Compositions enriched with natural phyto-oestrogens or analogues thereof
selected from Genistein, Daidzein, Formononetin and Biochanin A. These may be used as food additives, tablets or capsules for promoting health in cases of cancer, pre-menstrual syndrome, menopause or hypercholesterolaemia.
AN 1998:135034 USPATFULL
TI Health supplements containing phyto-oestrogens, analogues or metabolites
thereof
IN Kelly, Graham Edmund, Northbridge, Australia
PA Novogen Research Pty. Ltd., New South Wales, Australia (non-U.S. corporation)
PI US 5830887 19981103
WO 9323069 19931125
AI US 1995-338567 19950112 (8)
WO 1993-AU230 19930519
19950112 PCT 371 date
19950112 PCT 102(e) date
PRAI AU 1992-2511 19920519
DT Utility
EXNAM Primary Examiner: Kunz, Gary L.
LREP Dann, Dorfman, Herrell and Skillman
CLMN Number of Claims: 13
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 818

L8 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2001 ACS
AB This study compared the bioavailability of conjugates of the soy isoflavones genistein and daidzein in rats. Rats were given a single oral dose of a soy ext. that provided 74 .mu.mol genistein and 77 .mu.mol daidzein/kg body wt. (as conjugates). Plasma samples were obtained from treated and untreated rats; urine and fecal samples were obtained before and after treatment. Isoflavones, ☆equol☆ (the main end product of bacterial degrdn. of daidzein), and 4-ethylphenol (the main end product from genistein) were measured by HPLC. The plasma daidzein concn. was maximal at 2 h (9.5 .+-. 0.71 .mu.mol/L) and was almost double that of genistein (P = 0.009). Between 2 and 15 h, the plasma daidzein concn. declined by 32%, but the concn. of genistein changed little. At 15 h, the concns. of daidzein and genistein were not significantly different. Urinary excretion of daidzein over the 24-h period was 1.2% of the dose, but only 11.9 .+-. 1.1% of the genistein dose was excreted in urine. ☆Equol☆ excretion was 5.0 .+-. 1.5% of the daidzein dose, but 41.9 .+-. 5.0% of the genistein dose was excreted as 4-ethylphenol. Fecal daidzein accounted for 2.3 .+-. 0.5% and fecal genistein for 3.4 .+-. 0.4% of the resp. doses. It is concluded that conjugates of daidzein are more bioavailable than those of genistein, probably because of the greater resistance of the former to degrdn. by gut ☆bacteria☆.
AN 1998:789461 CAPLUS
DN 130:148215
TI Daidzein conjugates are more bioavailable than genistein conjugates in rats
AU King, Roger A.
CS Division of Human Nutrition, Commonwealth Scientific and Industrial Research Organization, Adelaide, Australia
SO Am. J. Clin. Nutr. (1998), 68(6, Suppl.), 1496S-1499S
CODEN: AJCNAC; ISSN: 0002-9165
PB American Society for Clinical Nutrition
DT Journal
LA English
RE.CNT 23
RE
(1) Gott, D; Xenobiotica 1987, V17, P423 CAPLUS
(2) Griffiths, L; Angiologica 1972, V9, P162 CAPLUS
(3) Griffiths, L; Biochem J 1972, V130, P1161 CAPLUS
(4) Griffiths, L; Biochem J 1972, V128, P901 CAPLUS
(5) Gugler, R; Eur J Clin Pharmacol 1975, V9, P229 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2001 ACS
AB Dietary intake of soybean isoflavonoids has pos. effects on heart and kidney diseases. Urinary ☆equol☆, a potent inhibitor of Na+-K+-2Cl- cotransport, originates from the metab. of soybean daidzein by intestinal ☆bacteria☆. Loop diuretics, such as furosemide, acting through inhibition of Na+-K+-2Cl- cotransport are used to maintain adequate blood vol. We compared the isoflavonoid inhibition of cotransport and effects on the function and hemodynamics of isolated perfused rat kidneys with the effects of furosemide. ☆Equol☆ (IC50 23.6.+-.3.6 .mu.M), genistein (IC50 34.8.+-.2.6 .mu.M), and daidzein (IC50 140.0.+-.24 .mu.M) inhibited the bumetanide-sensitive rubidium uptake in LLC-PKl cells. The IC50 values of ☆equol☆ and genistein were close to the IC50 value of furosemide (10.3.+-.2.7 .mu.M). Furosemide, ☆equol☆, and genistein stimulated water, sodium, and potassium excretion by isolated rat kidneys in the same temporal pattern. None of the isoflavonoids increased the glomerular filtration rate, but genistein induced vasorelaxation. Thus, isoflavonoids exhibit biol. activities of furosemide in vitro at concns. similar to those reported for other in vitro effects. More research is needed to evaluate the participation of cotransport inhibition by isoflavonoids in the beneficial effects of soy intake.
AN 1998:789334 CAPLUS
DN 130:124374
TI Soy isoflavonoids exhibit in vitro biological activities of loop diuretics
AU Martinez, Rosa M.; Gimenez, Ignacio; Lou, Jose M.; Mayoral, Jose A.; Alda,
Jose O.

CS Department of Pharmacology and Physiology, Faculty of Medicine, University
of Zaragoza, Zaragoza, 50009, Spain
SO Am. J. Clin. Nutr. (1998), 68(6, Suppl.), 1354S-1357S
CODEN: AJCNAC; ISSN: 0002-9165
PB American Society for Clinical Nutrition
DT Journal
LA English
RE.CNT 23
RE
(1) Akiyama, T; J Biol Chem 1987, V262, P5592 CAPLUS
(2) Alda, J; Biochem Biophys Res Commun 1996, V221, P279 CAPLUS
(3) Anthony, M; J Nutr 1996, V126, P43 CAPLUS
(4) Bannwart, C; Biomed Environ Mass Spectrom 1988, V17, P1 CAPLUS
(5) Barthelmebs, M; Naunyn Schmiedebergs Arch Pharmakol 1994, V349, P209 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 7 OF 18 BIOSIS COPYRIGHT 2001 BIOSIS
AB A newly developed recombinant yeast strain, in which the human estrogen receptor has been stably integrated into the genome of the yeast, was used to gain information on the estrogenic activity of a large series of dietary flavonoids. Among 23 flavonoids investigated, 8 were found to markedly stimulate the transcriptional activity of the human estrogen receptor in the yeast assay increasing transcriptional activity 5-13-fold above background level, corresponding to EC50 values between 0.1 and 25 muM. Five compounds increased the transcriptional activity 2-5-fold over the control, with EC50 values ranging from 84 to 102 muM, whereas the remaining flavonoids were devoid of activity. The most potent flavonoid estrogens tested were naringenin, apigenin, kaempferol, phloretin, and the four isoflavonoids ✪equol/ß, genistein, daidzein, and biochanin A. With the exception of biochanin A, the main feature required to confer estrogenicity was the presence of a single hydroxyl group in the 4'-position of the B-ring of the flavan nucleus, corresponding to the 4-position on phloretin. The estrogenic potency of the flavonoids was found to be [illegible] than that observed for 17beta-estradiol, when compared on the basis of EC50 values. The estrogenic activity of the dietary flavonoids was further investigated in estrogen-dependent human MCF7 breast cancer cells. In this system several of the flavonoids were likewise capable of mimicking natural estrogens and thereby induce cell proliferation. Similar structural requirements for estrogenic activity were found for the two assays. The present results provide evidence that several of the flavoestrogens possess estrogenic properties comparable in activity to the well-established isoflavonoid estrogens. The use of Alamar Blue, a vital dye which is metabolically reduced by cellular enzymes to a fluorescent product, was found to greatly simplify the MCF7 cell-based estrogen screen, making this mammalian assay
applicable as a large-scale screening tool for estrogenic compounds.
AN 1998:354899 BIOSIS
DN PREV199800354899
TI Detection of weak estrogenic flavonoids using a recombinant yeast strain and a modified MDF7 cell proliferation assay.
AU Breinholt, Vibeke (1); Larsen, John Christian
CS (1) Inst. Food Safety Toxicol., Div. Biochem. Mol. Toxicol., Danish Vet. Food Adm., Morkhoj Bygade 19, 2860 Soborg Denmark
SO Chemical Research in Toxicology, (June, 1998) Vol. 11, No. 6, pp. 622-629.
ISSN: 0893-228X.
DT Article
LA English

L8 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 3
AB ✪Equol/ß is an isoflavonoid phytoestrogen produced from the soy isoflavone daidzein by gut microflora. Not all humans produce ✪equol/ß from daidzein, presumably due to differences in colonic bacterial populations among individuals. Previously, smaller studies reported that approx. 30% of participants excreted ✪equol/ß when consuming soy. The purpose of our study was to det. the prevalence of ✪equol/ß excreters in a larger sample and to examine what dietary components might influence the tendency to be an ✪equol/ß excreter. Thirty men and thirty women consumed a soy protein beverage contg. 22 mg genistein and 8 mg daidzein for 4 days as a supplement to their habitual diets. The mean daily nutrient content of their habitual intakes was detd. from 4-day food records. On Day 4, participants provided a 24-h urine collection. Urinary isoflavonoid (genistein, daidzein, ✪equol/ß, and O-desmethy-langolensin) excretion was measured by gas chromatog.-mass spectrometry. Twenty-one of the 60 participants (35%) excreted ✪equol/ß (> 2000 nmol/day) after 3 days of consuming the soy supplement. Daily ✪equol/ß excretion ranged 2,134-20,301 nmol/day in the excreters and 21-233 nmol/day in the nonexcreters. There was no difference in ✪equol/ß excreter prevalence between men (43%) and women (27%). Daily excretion of daidzein, genistein, and O-desmethylangolensin was similar between ✪equol/ß excreters and nonexcreters and between men and women. Among the women, ✪equol/ß excreters consumed a significantly higher percentage of energy as carbohydrate and greater amts. of plant protein and dietary fiber, both as sol. and insol. fiber compared to nonexcreters. Such differences were not obsd. in the men, who overall had significantly higher fiber intakes than the women. These data suggest that, among women, dietary fiber or other components of a high-fiber diet may promote the growth and/or the activity of bacterial populations responsible for ✪equol/ß prodn. in the colon.
AN 1998:130939 CAPLUS
DN 128:243329
TI Urinary ✪equol/ß excretion with a soy challenge: influence of habitual diet
AU Lampe, Johanna W.; Karr, Susan C.; Hutchins, Andrea M.; Slavin, Joanne L.
CS Cancer Prevention Research Program, Fred Hutchinson Cancer Research Center, Seattle, WA, 98109, USA
SO Proc. Soc. Exp. Biol. Med. (1998), 217(3), 335-339
CODEN: PSEBAA; ISSN: 0037-9727
PB Blackwell Science, Inc.
DT Journal
LA English

L8 ANSWER 9 OF 18 USPATFULL
AB Method for inhibiting aldehyde dehydrogenase activity using daidzin and/or daidzin analog and/or daidzin or daidzin analog in combination with a factor or factors which increase the bioavailability of the daidzin or daidzin analog, as ALDH-I inhibitory compounds or compositions. Such inhibitory compounds or compositions are useful as pharmaceutical compositions in methods for the treatment of alcohol dependence (i.e., alcoholism) or alcohol abuse, for alcohol sensitization, for extinguishing an alcohol-drinking response, for suppressing an urge for alcohol, for inducing alcohol intolerance, for preventing alcoholism in an individual with or without a susceptibility or predisposition to alcoholism or alcohol abuse, and for limiting alcohol consumption in an individual whether or not genetically predisposed.
AN 97:36170 USPATFULL
TI Method for the inhibition of ALDH-I useful in the treatment of alcohol dependence or alcohol abuse
IN Vallee, Bert L., Brookline, MA, United States
Keung, Wing-Ming, Wayland, MA, United States
PA The Endowment for Research in Human Biology, Inc., Boston, MA, United States (U.S. corporation)
PI [illegible]
WO 9300896 19930121
AI US 1994-170272 19940524 (8)
WO 1992-US5598 19920630
19940524 PCT 371 date
19940524 PCT 102(e) date
RLI Continuation-in-part of Ser. No. US 1991-723404, filed on 1 Jul 1991, now patented, Pat. No. US 5204369
DT Utility
EXNAM Primary Examiner: Chan, Nicky
LREP Banner & Allegretti, Ltd.
CLMN Number of Claims: 6
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 14 Drawing Page(s)
LN.CNT 2449
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 10 OF 18 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 4
AB The in vitro effects of two closely related phyto-estrogens daidzein and ✪equol/ß on the estrogen receptor pos. human breast cancer cells MCF-7 were examd. There is differential metab. of daidzein in humans, and the conversion of daidzein to ✪equol/ß by intestinal ✪microbes/ß occurs only in 30% of the population. The differential potency of these two compds. is thus of considerable importance since it may be likely that the relative risk of hormone-dependent cancers may be higher in "non-responders". In the present study, we compared the ability of both these compds. to induce mRNA expression of the estrogen-responsive
pS2 gene, to compete with estradiol for binding to the estrogen receptor (ER) and to affect cellular proliferation. The studies demonstrate that ✪equol/ß is 100-fold more potent than daidzein in stimulating an estrogenic response. ✪Equol/ß was also more effective than daidzein in competing with 3H-estradiol for binding to the ER. These results suggest that ✪equol/ß has a higher affinity for the ER. Both compds. stimulated the growth of MCF-7 cells in a concn.-dependent manner (10-8-10-5 M). Although ✪equol/ß exhibits estrogenic activity, exposure of MCF-7 cells to ✪equol/ß simultaneously with estradiol was effective in reducing pS2 mRNA expression. This was not obsd. with daidzein. However, long-term exposure of MCF-7 cells to both daidzein and ✪equol/ß resulted in the downregulation of ER mRNA expression.
AN 1998:70561 CAPLUS
DN 128:176276
TI Differential effects of dietary phyto-estrogens daidzein and ✪equol/ß on human breast cancer MCF-7 cells
AU Sathyamoorthy, N.; Wang, T. T. Y.
CS Laboratory of Nutritional and Molecular Regulation, NCI-Frederick Cancer Research and Development Center, Frederick, MD, 21702-1201, USA
SO Eur. J. Cancer (1997), 33(14), 2384-2389
CODEN: EJCAEL; ISSN: 0959-8049
PB Elsevier Science Ltd.
DT Journal
LA English

L8 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2001 ACS
AB A review with 68 refs. A short review dealing with the origin, intestinal metab., biol. effects and role in cancer prevention of lignans and isoflavonoid phytoestrogens, is presented. These compds. occur in

=> file reg

=> e equol/cn

E1 1 EQUIZOLE/CN
E2 1 EQUIZOLE A/CN
E3 1 --> EQUOL/CN
E4 1 EQUOL DIACETATE/CN
E5 1 EQUOL DISULFATE/CN
E6 1 EQUOL GLUCOSIDE/CN
E7 1 EQUOL GLUCURONIDE/CN
E8 1 EQUOL MONOSULFATE/CN
E9 1 EQUOL, (-)-/CN
E10 1 EQUOL, DIACETATE, (-)-/CN
E11 1 EQUORIN/CN
E12 1 EQVALAN/CN

=> s e3 e9

L1 0 EQUOL/CN "EQUOL, (-)-"/CN

=> s e3

L2 1 EQUOL/CN

=> s e9

L3 1 "EQUOL, (-)-"/CN

=> d l2

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
RN 531-95-3 REGISTRY
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (S)-
CN 4',7-Isoflavandiol (6CI, 7CI, 8CI)
OTHER NAMES:
CN (-)-Equol
CN (S)-(-)-4',7-Isoflavandiol
CN 4',7-Dihydroxyisoflavan
CN ☆Equol☆
CN Equol, (-)-
FS STEREOSEARCH
DR 20879-01-0
MF C15 H14 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK*, NAPRALERT, PROMT, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
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Absolute stereochemistry.

203 REFERENCES IN FILE CA (1967 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
204 REFERENCES IN FILE CAPLUS (1967 TO DATE)
11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> d l3

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS
RN 531-95-3 REGISTRY
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (3S)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-, (S)-
CN 4',7-Isoflavandiol (6CI, 7CI, 8CI)
OTHER NAMES:
CN (-)-Equol
CN (S)-(-)-4',7-Isoflavandiol
CN 4',7-Dihydroxyisoflavan
CN Equol
CN ☆Equol, (-)-☆
FS STEREOSEARCH
DR 20879-01-0
MF C15 H14 O3
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, MRCK*, NAPRALERT, PROMT, TOXLINE, TOXLIT, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.

203 REFERENCES IN FILE CA (1967 TO DATE)
5 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
204 REFERENCES IN FILE CAPLUS (1967 TO DATE)
11 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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FULL ESTIMATED COST 15.64 15.79

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=> s 531-95-3 or equol

L4 463 531-95-3 OR EQUOL

=> s daidzein and l4

L5 316 DAIDZEIN AND L4

=> s microorganism? or microb? or bacteria

L6 1831970 MICROORGANISM? OR MICROB? OR BACTERIA

=> s l4 and l6

L7 24 L4 AND L6

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L8 18 DUP REM L7 (6 DUPLICATES REMOVED)

=> d ab bib tot

L8 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
AB The soy isoflavones, daidzein and genistein, and the lignans, matairesinol and secoisolariciresinol, are phytoestrogens metabolized extensively by the intestinal microflora. Considerable important evidence is already available that shows extensive interindividual variation in isoflavone metab., and we have investigated the extent of this variation in a crossover study of a soy-contg. food low or high in isoflavones (each treatment period lasted for 17 days, and the 2 treatment periods were sepd. by a 25-day washout period) in 24 healthy subjects [19 women and 5 men, mean age 30 yr, range 19-40, mean body mass index 22.5 .+-. 3.5 (SD) kg/m2]. There was a 16-fold variation in total isoflavonoid excretion in urine after the high-isoflavone treatment period. The variation in urinary ☆equol☆ excretion was greatest (664-fold), and subjects fell into two groups: poor ☆equol☆ excretors and good ☆equol☆ excretors (36%). A significant neg. correlation was found between the proportion of energy from fat in the habitual diet and urinary ☆equol☆ excretion (r = -0.55; p = 0.012). Good ☆equol☆ excretors consumed less fat as percentage of energy than poor excretors (26 .+-. 2.3% compared with 35 .+-. 1.6%, p < 0.01) and more carbohydrate as percentage of energy than poor excretors (55 .+-. 2.9% compared with 47 .+-. 1.7%, p < 0.05). Interindividual variation in the urinary excretion of O-desmethylangolensin (O-DMA) was also apparent (76-fold after the high-isoflavone treatment period), but there was no relationship between ☆equol☆ excretion and O-DMA excretion. Enterolactone was the major lignan metabolite in urine and plasma but showed less interindividual variation than ☆equol☆ and O-DMA. It is suggested that the dietary fat intake decreases the capacity of gut ☆microbial☆ flora to synthesize ☆equol☆.
AN 2000:319508 CAPLUS